

AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Currently amended) The method of Claim 1, wherein forming the first lower electrode comprises depositing the first lower electrode using a damascene process.
3. (Currently amended) The method of Claim 1, wherein forming the magnetic stack structure comprising forming a magnetic pinned layer, a barrier layer, and a magnetic sense layer.
4. (Currently amended) ~~The method of Claim 1,~~ A method of fabricating a magnetic memory device having a magnetic stack structure interposed between a lower and upper electrode, the method comprising:
 - forming an insulating layer so as to define a recessed well above the lower electrode traces, wherein defining the recessed well comprises defining a recessed well with sloped interior walls;
 - forming the magnetic stack structure within the recessed wells above the lower electrode;
 - planarizing the magnetic stack structure to define a magnetic bit shape using chemical-mechanical polishing; and
 - forming the upper electrode on the magnetic stack structure.
5. (Currently amended) ~~The method of Claim 1,~~ A method of fabricating a magnetic memory device having a magnetic stack structure interposed between a lower and upper electrode, the method comprising:
 - forming an insulating layer so as to define a recessed well above the lower electrode traces, wherein defining the recessed well comprises defining an elliptical recessed well with concave interior walls;
 - forming the magnetic stack structure within the recessed wells above the lower electrode;
 - planarizing the magnetic stack structure to define a magnetic bit shape using chemical-mechanical polishing; and
 - forming the upper electrode on the magnetic stack structure.

6. **(Currently amended)** ~~The method of Claim 1,~~ A method of fabricating a magnetic memory device having a magnetic stack structure interposed between a lower and upper electrode, the method comprising:

forming an insulating layer so as to define a recessed well above the lower electrode traces, wherein defining the recessed well comprises defining a semi-spherical recessed cavity;

forming the magnetic stack structure within the recessed wells above the lower electrode;

planarizing the magnetic stack structure to define a magnetic bit shape using chemical-mechanical polishing; and

forming the upper electrode on the magnetic stack structure.

7. **(Currently amended)** The method of Claim ~~1~~ 4, wherein the method further comprises forming a thin dielectric layer having a via hole interposed between the magnetic stack structure and the upper electrode.

8. **(Currently amended)** The method of Claim ~~1~~ 4, further comprising wherein forming the magnetic stack structure comprises forming an MRAM cell including the magnetic stack structure.

9. **(Currently amended)** ~~The method of Claim 1,~~ A method of fabricating a magnetic memory device having a magnetic stack structure interposed between a lower and upper electrode, the method comprising:

forming an insulating layer so as to define a recessed well above the lower electrode traces, wherein forming the magnetic stack structure comprises forming a lower magnetic sense layer, a barrier layer, an upper magnetic pinned layer, and a CMP stop layer;

forming the magnetic stack structure within the recessed wells above the lower electrode;

planarizing the magnetic stack structure to define a magnetic bit shape using chemical-mechanical polishing; and

forming the upper electrode on the magnetic stack structure.

10. **(Original)** A method of fabricating a magnetic memory device, the method comprising:

forming a first electrode having an upper exposed surface within a substrate using a damascene process;

forming a magnetic pinned layer on the upper exposed surface of the first electrode so as to establish a conductive interconnection therewith;

forming a dielectric layer adjacent to the substrate so as to provide a recessed region with sloped interior side walls adjacent to the magnetic pinned layer for the subsequent forming of an overlying barrier layer and a magnetic sense layer;

depositing the barrier layer overlying the magnetic pinned layer;

depositing the magnetic sense layer overlying the barrier layer;

planarizing the barrier layer and the magnetic sense layer so as to define at least one magnetic bit shape using a chemical-mechanical polishing technique and stopping adjacent to the dielectric layer; and

forming the second electrode on the magnetic sense layer so as to establish a conductive interconnection therewith.

11. **(Canceled)**